



[7590-01-P]

NUCLEAR REGULATORY COMMISSION

[Docket No. 50-295, 50-304 and 72-1037; NRC-2014-0199]

Zion Solutions, LLC.

Zion Nuclear Power Station, Units 1 and 2

Independent Spent Fuel Storage Installation

AGENCY: Nuclear Regulatory Commission.

ACTION: Environmental assessment and finding of no significant impact; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is considering issuing an exemption to the spent fuel storage requirements applicable to Zion *Solutions*, LLC. (hereafter, ZS or the applicant), general license to operate an Independent Spent Fuel Storage Installation (ISFSI) at the Zion Nuclear Power Station (ZNPS). ZS seeks approval to load MAGNASTOR storage casks (Certificate of Compliance (CoC) No. 72-1031) in a different manner than permitted by any amendment to the MAGNASTOR CoC, but which the NRC has previously reviewed as a proposed amendment to that CoC. The applicant is currently loading storage casks and maintains that relief from requirements provides flexibility in operations, minimizes equipment runtime and repair, and minimizes personnel dose.

ADDRESSES: Please refer to Docket ID **NRC-2014-0199** when contacting the NRC about the availability of information regarding this document. You may obtain publicly-available information related to this document using any of the following methods:

- **Federal Rulemaking Web Site:** Go to <http://www.regulations.gov> and search for Docket ID **NRC-2014-0199**. Address questions about NRC dockets to Carol Gallagher; telephone: 301-287-3422; e-mail: Carol.Gallagher@nrc.gov. For technical questions, contact the individual listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **NRC's Agencywide Documents Access and Management System (ADAMS):**
You may obtain publicly available documents online in the ADAMS Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "[ADAMS Public Documents](#)" and then select "[Begin Web-based ADAMS Search](#)." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to pdr.resource@nrc.gov. For the convenience of the reader, the ADAMS accession numbers are provided in a table in the "Availability of Documents" section of this document.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

FOR FURTHER INFORMATION CONTACT: Pamela Longmire, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington DC 20555-0001; telephone: 301-287-0829, e-mail: Pamela.Longmire@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Introduction

The U.S. Nuclear Regulatory Commission (NRC) is considering issuing an exemption to the spent fuel storage requirements applicable to ZS to operate an ISFSI at the ZNPS located in

Zion Illinois. Therefore, as required by section 51.30 of Title 10 of the *Code of Federal Regulations* (10 CFR), the NRC performed an environmental assessment. Based on the results of the environmental assessment that follows, the NRC has determined not to prepare an environmental impact statement for the exemption, and is issuing a finding of no significant impact.

Zion Solutions, LLC. is a general licensee under 10 CFR Part 72 for the storage of spent fuel in its ISFSI. The applicant is subject to 10 CFR 72.212, which provides in part that [t]he general license is limited to storage of spent fuel in casks approved under the provisions of 10 CFR Part 72. The general licensee must ensure that each cask used conforms to the terms, conditions, and specifications of a CoC, or an amended CoC, listed in Section 72.214.

The applicant seeks approval to load casks in a different manner than permitted by its current CoC, but which the NRC has previously reviewed as a proposed amendment to that CoC, but not issued as a final rule. NAC, the cask vendor, by application dated June 18, 2013, submitted an amendment request, as supplemented September 6, 2013, and September 19, 2013, to change limiting condition operation (LCO) 3.1.1. The NRC technical review of the NAC CoC amendment request is documented in the safety evaluation report. The NRC staff in the safety evaluation report concludes that the revised time limits of helium backfill and transportable storage canister (TSC) transfer time of technical specification (TS) LCO 3.1.1 are in compliance with 10 CFR Part 72. The evaluation of the thermal design provides reasonable assurance that the resulting values proposed will allow safe storage of the spent fuel. The applicant's exemption request for modified transfer time when a canister's thermal output is less than or equal to twenty (20) kilowatts, $\leq 20\text{kW}$, relies, as the basis for approval, on the NAC CoC amendment request review performed by the NRC staff.

II. Environmental Assessment

Description of the Proposed Action

The proposed action would exemption ZS from specific portions of the requirements of 10 CFR 72.212 "Conditions of general license issued under § 72.210," specifically 10 CFR 72.212(a)(2), 72.212(b)(3), 72.212(b)(5)(i), 72.212(b)(11) and 10 CFR 72.214 "List of approved spent fuel storage casks," for the ZNPS ISFSI. The proposed exemption request pertains to the requirements of technical specification LCO 3.1.1, TSC, Section 1, first table, regarding allowed transfer time from loading of a TSC inside the MAGNASTOR transfer cask (MTC) to placement into the vertical concrete cask (VCC) following the completion of helium backfill. The proposed exemption is to modify the allowable transfer time from eight (8) hours to six hundred (600) hours. The transfer time is for the movement of a TSC, with heat load ≤ 20 kW, from the decontamination pit to the VCC.

The proposed exemption is in accordance with the ZS application dated June 25, 2014,

Need for the Proposed Action

The proposed action would relieve the applicant from requirements of 72.212(a)(2), 72.212(b)(3), 72.212(b)(5)(i), 72.212(b)(11), and 10 CFR 72.214 and requests to use a LCO submitted by the cask vendor, NAC, as "Amendment No. 4" to NAC MAGNASTOR, CoC No. 1031. CoC No. 1031, Amendment No. 4 increases the transfer time for a canister with a heat load ≤ 20 kW from 8 hours, as required by LCO 3.1.1 under Amendment No. 3, to 600 hours. The applicant maintains that extending the period for the operator to complete the transfer provides the operator the opportunity to conclude the activity, provides flexibility in operations, minimizes equipment runtime and repair, and minimizes personnel dose.

Environmental Impacts of the Proposed Action

The NRC staff has determined that issuance of the proposed exemption will have no significant environmental impact.

Environmental Impacts of the Alternatives to the Proposed Action

As an alternative to the proposed action, the staff considered denial of the proposed action (i.e., the “no-action” alternative). This alternative would have the same environmental impacts as the proposed action. In the event the NRC were to deny the requested exemption, ZS would continue to operate under the requirements of the current MAGNASTOR[®] CoC, which has previously been determined to have no significant impacts. The potential environmental impact of using the MAGNASTOR[®] system was initially analyzed in the environmental assessment for the final rule to add the MAGNASTOR[®] system to the list of approved spent fuel storage casks in 10 CFR 72.214 (73 FR 70587; November 21, 2008). The environmental assessment for the November 21, 2008, final rule concluded that there would be no significant environmental impact for adding the MAGNASTOR[®] system, and therefore, the NRC issued a finding of no significant impact.

Alternative Use of Resources

This action does not impact any resource implications discussed in previous environmental reviews.

Agencies and Persons Consulted

In accordance with its stated policy, on August 21, 2014, the staff consulted with Mr. Joseph Klinger, Assistant Director of the Illinois Emergency Management Agency (IEMA) by e-mail, regarding the environmental impact of the proposed action. The state's response was received by e-mail dated August 28, 2014. The e-mail response states that IEMA reviewed the

draft environmental assessment and had no comments. The state official concurred with the environmental assessment and finding of no significant impact.

The NRC staff has determined that a consultation under Section 7 of the Endangered Species Act is not required because the proposed action will not affect listed species or critical habitat. The NRC staff has also determined that the proposed action is not a type of activity that has the potential to impact historic properties because the proposed action would occur within the established ZNPS site boundary. Therefore, no consultation is required under Section 106 of the National Historic Preservation Act.

III. Finding of No Significant Impact

In the preparation of this Environmental Assessment, the staff used guidance in NUREG-1748, "Environmental Review Guidance for Licensing Actions Associated with NMSS Programs."

The proposed action will not increase the probability or consequences of accidents. No changes are being made in the types or quantities of effluents that may be released offsite, and there is no significant increase in occupational or public radiation exposure. Therefore, there are no significant radiological environmental impacts associated with the proposed action. The proposed action does not affect non-radiological effluents and has no other environmental impacts. Thus, there are no significant non-radiological impacts associated with the proposed action. Therefore, the proposed action will not have a significant effect on the quality of the human environment. Based on these findings, the NRC concludes that there are no significant environmental impacts associated with the approval of the requested exemption.

On the basis of the environmental assessment, the NRC concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly,

the NRC has determined not to prepare an environmental impact statement for the proposed action.

IV. Availability of Documents

The documents identified in the following table are available to interested persons through one or more of the following methods, as indicated.

Document	ADAMS Accession No.
NAC application dated June 18, 2013	ML13171A031
NAC supplement dated September 6, 2013	ML13261A278
NAC supplement dated September 19, 2013	ML13268A049
NRC safety evaluation report	ML14010A495
ZS exemption request	ML14182A474
NRC e-mail dated August 21, 2014, to Illinois Emergency Management Agency forwarding draft environmental assessment and Illinois Emergency Management Agency response dated August 28, 2014, to draft environmental assessment	ML14246A464
NUREG-1748, "Environmental Review Guidance for Licensing Actions Associated with NMSS Programs"	ML032450279

Dated at Rockville, Maryland, this 3rd day of October, 2014.

For the Nuclear Regulatory Commission.

Michele Sampson, Chief,
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Office of Nuclear Material Safety
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